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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/453,498	12/03/1999	BRUCE R. SMITH	013550-069	2714
7590	08/02/2004		EXAMINER	
MICHAEL W. FERRELL, ESQ. FERRELLS, PLLC P.O. BOX 312 CLIFTON, VA 20124-1706			KIM, EUGENE LEE	
			ART UNIT	PAPER NUMBER
			3721	
DATE MAILED: 08/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)
	09/453,498	SMITH ET AL.
	Examiner	Art Unit
	Eugene L Kim	3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 06 July 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 22 is/are allowed.

6) Claim(s) 1-21 and 23-26 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1-21, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Handel et al (4,721,500) in view of Gospe et al (#6,029,730). Handel et al substantially show the claimed subject matter including a female and male die wherein the dies are heated with electrical resistance heaters. The heaters are not shown. Handel also discloses thermistors mounted in the dies as close as possible to the forming surfaces. (Col 7 lines 66 - col 8 line 2). Handel does not disclose the exact heating elements as claimed. Gospe et al disclose that a heater assembly in a cast-in method wherein the heating element is cast in a platen (col 4 lines 48+). Gospe et al disclose that the foil heater 62, which includes a resistor line, which is an electrically conductive material such as, nickel chromium, can be replaced with various thermoelectric devices, such as a cast-in heater. Gospe et al disclose a top and bottom plate 22, 24 that are made from an alloy material, such as, stainless steel (col 3 lines 26+). Gospe et al disclose that the heating elements are inserted in holes/recesses 30. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Handel with a heating element as taught by Gospe et al to use an alternative known thermoelectric device. Since the primary reference, Handel discloses upper and lower resistance heaters, it would have been obvious to provide Handel with heater elements as taught by Gospe et al on both the upper and lower dies to provide for efficient temperature control on the heating surfaces. Regarding the actual materials being claimed, such as, the cast-in material being ferrous or non-ferrous based alloys,

the examiner notes that selection of material on the basis of suitability for in the intended use is entirely obvious. See *in re Leshin*, 125 USPQ 416 (CCPA 1960). The examiner takes official notice that it is well known in the art to use resistive wires as heating elements. Regarding the annular shape of the cast-in heaters as claimed, Gospe et al disclose that the heater is placed within recesses 30 which infers that the heater 32 would be annular in shape to fit into the recess/hole 30.

2. Claim 22 is allowed.
3. Applicant's arguments filed 7/6/2004 have been fully considered but they are not persuasive.

In response to applicants argument regarding the Declaration of Mr. Mark B. Littlejohn, the examiner notes that secondary reference Gospe et al is being used to teach the concept that cast-in heaters are interchangeable with various heating elements as discussed in col 4 lines 48+. Therefore, the combination is deemed proper and obvious to one of ordinary skill in the art. Furthermore, the examiner notes that mere selection of known materials, such as cast-in heaters, on the basis of suitability for the intended use would be entirely obvious. See *in re Leshin*, 125 USPQ 416 (CCPA 1960).

In response to applicants unexpected results, the examiner notes that the combination of references would deem the same results since a cast-in heater would be utilized. The examiner further notes to look at the following website which discloses the well known advantages of cast-in heaters.

<http://www.watlow.com/literature/casehistorydetail.cfm?id=175>

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In response to applicants unexpected results, the examiner notes that the combination of references would deem the same results since a cast-in heater would be utilized.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene L Kim whose telephone number is 703 308-1886. The examiner can normally be reached on Tuesday-Friday 8 a.m. to 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 703 308-2187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eugene L Kim
EUGENE KIM
PRIMARY EXAMINER